



VICTORY IS OUR BUSINESS



The farm family is one of America's greatest victory teams

Because their farms are their business, their security, their very life, farm families always work together like no others.

And this "working together" has made it possible for American farming to overcome all obstacles and accomplish "miracles" in food production for war.

The farm family symbolizes the spirit of American unity that has enabled us to carry the war to the enemy in such a short space of time.

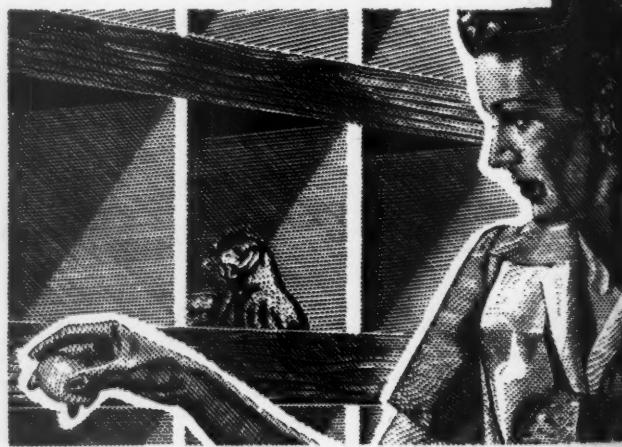
General Motors pays tribute to the American farm family—for its teamwork

—for the results that teamwork has produced. We know what teamwork means.

We're in it, too—producing arms for Victory, just as you are producing food for Victory. We are both "working together," and we are both inspired by the same high purposes: to support our armed forces—to help them win this war as quickly as possible—and to preserve the basic American principles of freedom and opportunity for all.



Every Sunday Afternoon—GENERAL MOTORS SYMPHONY OF THE AIR—NBC Network



GENERAL MOTORS

CHEVROLET • PONTIAC • OLDSMOBILE • BUICK • CADILLAC • FISHER BODY

GMC TRUCK • FRIGIDAIRE • DELCO APPLIANCE

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MORE FRUIT BETTER FRUIT BIGGER PROFITS

with "Parmone" hormone treatment



United States Department of Agriculture estimates that hormone treatment of apples and pears is saving fruit growers \$3,000,000 to \$4,000,000 a year.

"PARMONE" WILL GIVE YOU YOUR SHARE OF THIS PROTECTION!

"Parmone" reduces pre-harvest drop of apples and pears by retarding dissolution of the abscission layer between the fruit stem and the spur (see broken line).



DON'T STAND BY while pre-harvest drop piles up worthless culls. Treat your apples and pears with "Parmone"—the hormone spray that helps reduce pre-harvest drop of good commercial fruit.

"Parmone" effectively reduces drop for one to three weeks. There is no *accelerating* or *arresting* effect on the normal ripening process. Certain varieties may require two applications, depending on weather conditions, tree vigor, etc. The treatment helps prevent excessive drop during the normal harvesting period. This permits maximum development of color and quality.

"Parmone" is easy to measure and mix. It's concentrated—one pint makes 400 gallons of spray. Only normal agitation is required. Where desired, "Parmone" may be combined with summer oil, fixed nicotine or Du Pont Spreader-Sticker.

ALSO AVAILABLE "PARMONE" DUST

For use in those regions where dusting is more practical than spraying, Du Pont offers "Parmone" in Dust form. It is comparable to the Spray in both cost and effectiveness.

"PARMONE" HELPS YOU 4 WAYS

- Reduces pre-harvest drop and cull losses.
- Permits development of better color, size and quality.
- Lessens droppage caused by untimely winds and jarring.
- Cuts down spot picking.

FOR MORE INFORMATION, WRITE for the interesting "Parmone" folder. E. I. du Pont de Nemours & Co. (Inc.), Grasselli Chemicals Department, Wilmington 98, Delaware.



DU PONT PARMONE

HORMONE SPRAY OR DUST

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY



Needles and nails made his first watch tools . . .

THE March wind rattled the bedroom window. But the lantern on the floor gave a steady glow to warm the boy's feet.

Then his head bent even more closely to the work. He nudged the balance wheel—and life and motion came back into the timepiece.

Watch repairing was coming easier to young Henry Ford. He had started at 14 and the first watch (today in his collection at Dearborn) had been mended with a shingle nail, tweezers made from a corset stay, and knitting needles. Now he had real tools. After school, he was neighborhood watch repairer.

Everyone was enthusiastic about his work, particularly because he didn't charge for it. But it wasn't money that interested Henry Ford. Here was an opportunity to *learn by doing*—and he was making the most of it.

Years later, the watchmaker's touch and the creed of precision learned by Henry Ford in those winter nights were to guide the building of 30 million cars and trucks. Moreover, it was Mr. Ford's knowledge of watchmaking that prompted inauguration of the assembly line. This in turn brought shorter working hours, increased wages, made life easier, and is today speeding equipment to pre-

serve our American way of living.

New cars belong to the future. But when tomorrow's Ford, Mercury and Lincoln cars arrive, they will reflect anew the watchmaker's skill, the workmanship and engineering resourcefulness that are typical of the Ford Motor Company.

As in the past, they will be motor-cars that are reliable and economical, smart and comfortable . . . priced within the means of the greatest number. For Mr. Ford has declared: "The profits we are most interested in are those the public gets from using the things that we produce. The only real profit is the public benefit."

FORD MOTOR COMPANY



LETTERS TO THE EDITOR

July Cover Model

Dear Sirs:

With all the U. S. to choose from, our village feels flattered that you picked a South Orange girl for your July cover model. Hollywood and Powers should take notice.

South Orange, N.J.

George D. Hofe



Model Pat Gilbertson

Dear Sirs:

Who is the pretty farm girl on your July cover, whose identity, figuratively speaking, you have hidden under a bushel of peaches? Pinesville, W. Va. Paul D. Blackshear

She is Pat Gilbertson, 18, of 341 Montrose Avenue, South Orange, N.J., who is spending the summer in New Jersey's peach growing county of Monmouth. Photographer was Henry Nienhaus of East Orange, N.J.—Editor

Cider Making

Dear Sirs:

In our orchard we have a large number of "falls" that hitherto have not been of much use. We would like to use some of our apples in making cider this fall. Could you please send us a recipe or-recipes for making cider (both sweet and hard)?

St. Mary's College
Winona, Minnesota

Bro. J. Gregory

Booklets on sweet cider making have been sent to Brother Gregory. Hard cider will take care of itself.—Ed.

Don't Finger Them

Dear Sirs:

The lines below are a lamentation of pain patiently borne through many seasons of selling fruit at my husband's stand. All growers and sellers will understand.

Methuen, Mass. Helen R. Mann

Customers

I tend my roadside apple-stand
And study human nature.
Just love you folks who stop to shop—
With high "IQs" I rate ya.
You're smart to ponder price and grade—
Glad to accommodate ya.
But press your thumbs in the number ones!
You're morons—and I hate ya!

Grower's Library List

Dear Sirs:

Another physician and I have bought a fruit farm near Winchester, Virginia. At present there is a good overseer living on

the place, but it may not always be so. Consequently, we are anxious to read about this branch of agriculture in order to have a better knowledge of the proper care of the trees.

Would you be able to suggest a list of books that would aid our education? It should begin with fundamentals.

Pittsburgh, Pa. Reuben G. Alley, M.D.

American Fruit Grower's library list has been sent to Dr. Alley.—Ed.

Station Bulletin 290

Dear Editor:

Please send me Station Bulletin 290 about girdling fruit trees.

Bermuda George Brand, C.M.2/c

Carpenter's Mate Brand got the same news as several hundred other inquirers: Bulletin 290 is exhausted—but a summary sheet was sent. Letter indicated that members of the Armed Forces have not forgotten fruit growing.—Ed.

Ceiling Price

Dear Sirs:

Would you kindly let me know what the ceiling price will be for a grower who retails his strawberries at a roadside stand. I will have about 4000 quarts to sell on the second crop. I had no first crop this year. These are everbearers which make some difference on price as they are out of season and the cost is greater to produce.

Pequot Lakes, Minn. Chas. Brunes

The O.P.A. tells us that grower Brunes can charge the same price as a number one grocery store in his locality. This price is 50 cents per quart, or \$7.98 per crate of 16 quarts.—Ed.

Appeasing Birds

Dear Sir:

In your issue for July, page 9, is an inquiry from Owen E. Willard, Leominster, Mass., on how to keep birds from eating his cherries, and your reply.

My plan has been to plant mulberry trees some place near the cherries. They must be varieties of mulberries that ripen with the cherries. The birds like the mulberries much better than they do the cherries. My mulberry trees are full of birds from daylight to dark every day and the birds hardly ever touch my cherries.

Sodus, N.Y. B. J. Case

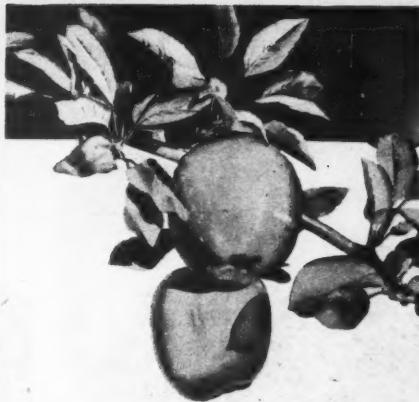
Thanks for a good suggestion. Growers, as well as the birds, will appreciate Mr. Case's plan.—Ed.

White Currants

Gentlemen:

I noticed the article in the July issue of the *American Fruit Grower*. "Looking Ahead in Fruit Breeding," and thought you might be interested in a white currant that I am propagating. I found it about 15 years ago, a sport of the Red Perfection currant. In my opinion it is the largest white currant grown. It is not as acid as the red currant and makes a fine pink jelly. We are sending you a sample of the white currant fruit.

Klehm's Nurseries, Inc.
Arlington Heights, Ill. George Klehm



-and now THE HARVEST

ORTHO* SPRAYS bring the fruit along to harvest time—a clean, full-finished crop, and now the harvest.

A few extra days safely on the trees adds flavor and quality. A few extra days will help out in the picking.

FRUITONE hormone spray or dust is designed to prevent premature fruit drop and to extend the tenacity of the fruit stem.

ORTHOL-K Summer Oil added to the hormone spray increases its penetrating quality. It makes sure that the hormone has every opportunity to produce results.

DUST FRUITONE

Growers with dusting equipment can use **DUST FRUITONE**. One pound provides coverage equal to ten gallons of **FRUITONE** Spray.

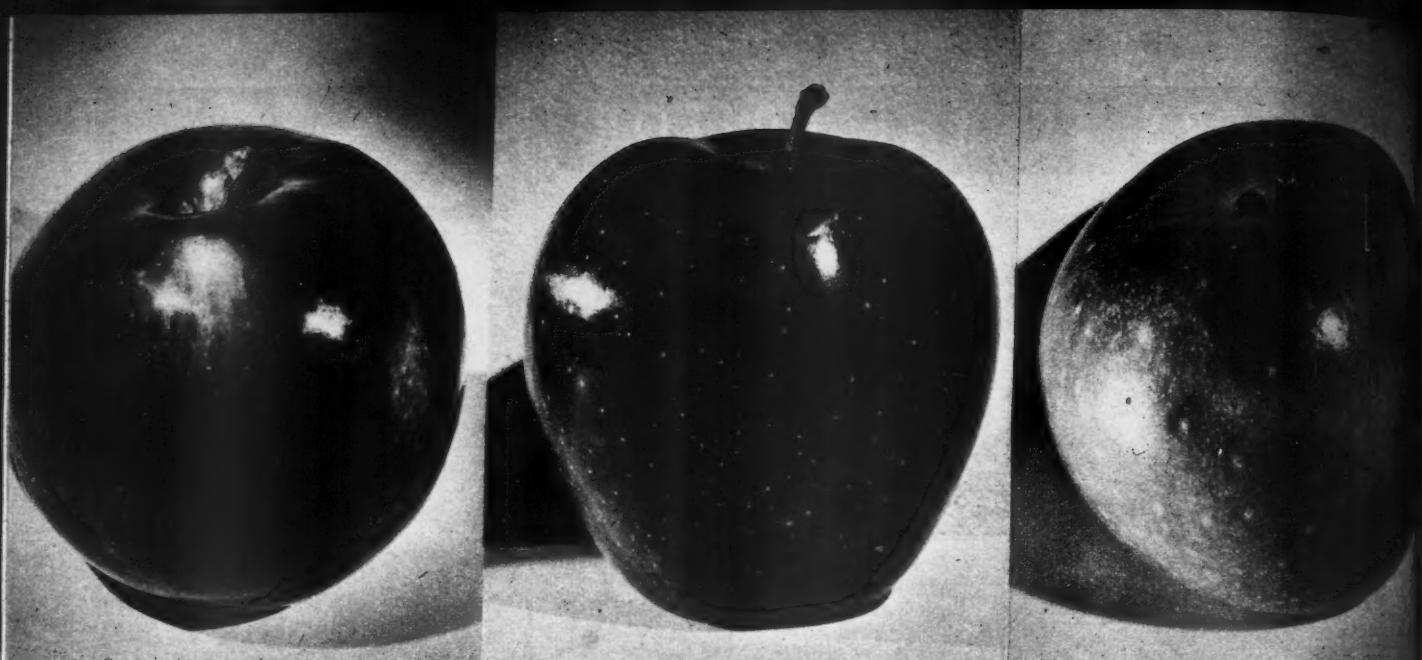
FRUITONE

REG. U.S. PAT. OFF.
fortified with
ORTHOL-K
REG. U.S. PAT. OFF.

inexpensive insurance of gathering the fullest possible crop of fully finished fruit—apples, pears, peaches, and cherries.



CALIFORNIA SPRAY-CHEMICAL CORPORATION
ELIZABETH, NEW JERSEY



McIntosh—favorite in the Northeast.

Delicious—leads all varieties.

Stayman Winesap—a steady favorite.

APPLE PRODUCTION BY VARIETIES

By H. P. GOULD

In January, 1944, the Bureau of Agricultural Economics, U. S. Department of Agriculture, issued a mimeographed report under the above title. It contains some interesting as well as surprising revelations, particularly as to the varieties.

The commercial crop of all varieties for the United States in 1943 was about 88,000,000 bushels, the smallest crop in the 10-year period 1934 to 1943. In 1942, the crop was about 128,273,000 bushels. There were 3 crops in the same 10-year period larger than this one.

This report gives the production of the different varieties for each of these 2 years in both actual quantities and in percentages of the total crop for each of the important apple producing states and for the country as a whole. The percentage data for the country as a whole serve the purpose of the present discussion. They are presented in table 1 on varieties and percentages, grouped as summer, fall and winter sorts.

It should be explained that the varieties are placed in the different seasonal groups in accordance with their ripening in the regions where they are the most important commercially; thus Gravenstein, though a fall variety in some sections, is commercially important mainly in California where it is a summer apple.

Though there are scores of varieties grown commercially (there were more than 260 different varieties offered in the 1941 nursery catalogs of the country) only 18 are specifically named in the above table—not including Gano, which in the report which forms the basis of this study was grouped with Ben Davis. It is assumed that all of the red sports of Delicious, now grown in considerable quantity in the aggregate, are included with Delicious in the table. Digressing from the main theme: Had the Gano appeared subsequent to, say, about 1910 with the same obscure origin that characterizes it, it would likely have been considered a red bud sport of Ben Davis. Its known history goes back to about 1844, which was 65 to 70 years before fruitmen had become "bud sport conscious." There is nothing in this part of its history, however, that precludes the possibility of such an origin. A similar suggestion as to origin may be made with respect to Hastings Red, at one time grown to a limited extent in northwest Arkansas; to Etris, and possibly others.

While many varieties are grown commercially and are included in the table under "other summer," "other fall," and "other winter" sorts, the production of any one comprises so small a percentage of the total that

they are not specifically mentioned.

From the variety standpoint one of the most interesting and perhaps surprising facts brought out is that of those mentioned by name, only one, the Cortland, originated as a result of carefully controlled breeding work. This variety is a cross between Ben Davis and McIntosh made in 1898 at the N. Y. Agricultural Experiment Station at Geneva. The original seedling tree was planted in the nursery in 1899 and first fruited in 1911.

True, the original Wealthy tree grew supposedly from a cherry crabapple seed planted about 1860, and Stayman Winesap from a carefully selected Winesap seed planted in 1866 by the late Dr. J. Stayman, Leavenworth, Kansas, but such selection is better expressed as fruit improvement than fruit breeding in the strict use of that term.

At first thought, it seems surprising that only one of the varieties resulting from a controlled cross has as yet come into commercial production in sufficient quantity to be included in such a list as appears in table 1. Since the "turn of the century" at least 150 varieties, and probably more, resulting from controlled crossing, with both parents a matter of record, have been named and introduced; at least the names have been published. This

number includes many that probably have never been propagated commercially. In some cases such varieties were named when they were first distributed for testing rather than after their merit has been proven. It is further to the point that since about the year 1900 names of scores and probably hundreds of varieties have been published, the seed parents of which are known. Some of these have much merit and have been planted to a considerable extent but have not yet come into large production.

In the second column of table 1, some idea of the "antiquity" of most of the varieties that make up the bulk of commercial production is shown. Even Cortland goes back more than 45 years to its time of origin; Delicious was introduced in 1895—now nearly 50 years ago. The most recent introduction in the list, Golden Delicious, was introduced 28 years ago—in 1916. All of the others are much older.

This situation with regard to the comparative absence of the newer varieties in commercial production bears out to a considerable degree the observation made some years ago by the late W. T. Macoun, Dominion Horticulturist of Canada, that it requires 40 years from the planting of the seed for a new apple variety to reach popular production.

A query may present itself as to the commercial status of the newer varieties resulting from breeding work. A partial answer is in the fact that in the 1941 nursery catalogs there were listed at least 25 such varieties, so that as they become known on the basis of their proven commercial merits they will be available for planting.

Those proved to lack merit will naturally be dropped from the nursery lists.

The fact should be emphasized that most of the 150 or more varieties resulting from breeding, that is, from controlled crossing, the names of which have been published and many of those of which only the seed parents are known, have appeared only within the past 20 or 25 years, hence lack considerable in matter of time of the 40 years claimed by Macoun to be required for a new apple variety to become popular.

It may be further pointed out that an impressive proportion of the varieties of commercial importance have a wide range of adaptability, at least, regionally. In contrast, there has not yet been time since they were introduced for many of the newer varieties to have demonstrated their commercial value over a wide area. Another 15 to 25 or 30 years may see a considerable number of these recent in-

roductions crowding out, because of their proven merit, some of the old varieties.

Another angle in breeding for better varieties, is the influence of localized or regional needs—greater hardiness, resistance to prevalent diseases or insects; better shipping, storage and eating qualities; better color under local conditions—and others. The objective is first to meet these local or regional needs rather than the development of varieties having a wide range of adaptability. Naturally, a new variety that proves superior in any section should be widely tested

to determine whether it *does* have more than local adaptation.

The importance of widely testing new varieties is emphasized by referring again to table 1. For instance, Gravenstein, though widely grown, is of little commercial value elsewhere than in California. Jonathan, of New York origin, is of little value in that state, and Stayman Winesap is far from its best in the region of its origin. While Yellow Newtown develops to a good degree of perfection in the locality of its origin in New York, it is of commercial importance

(Continued on page 16)

Table 1—Varieties and percentages of entire commercial apple crops represented by each in 35 States for 1942 and 1943

Varieties	When introduced or time of origin	Percentage of entire crop	
		1942	1943
Summer—			
Gravenstein	Imported prior 1826	1.2	3.0
Other summer		3.1	3.5
Fall—			
Grimes Golden	Prior to 1804	2.1	1.8
Jonathan	Prior to 1826	7.4	7.8
Wealthy	From seed about 1860	1.6	2.7
Other Fall		2.7	2.8
Winter—			
Arkansas (<i>Black Twig</i>)	About 1833	0.9	0.6
Baldwin	About 1740	5.3	3.0
Ben Davis (and Gano)	Early 19th Century	2.8	2.6
Cortland	Seed grown 1898	1.3	1.3
Delicious	Introduced 1895	16.3	16.0
Golden Delicious	Introduced 1916	1.8	2.7
McIntosh	Prior to 1870	10.6	10.5
Northern Spy	Prior to 1800	1.9	1.8
Rhode Island Greening	Prior to 1750	2.2	2.0
Rome Beauty	Prior to 1850	5.3	6.4
Stayman Winesap	From seed about 1866	6.7	4.2
Winesap	Well known in 1817	10.2	11.2
Yellow Newtown	Early 18th Century	3.3	4.4
York Imperial	Early 19th Century	6.8	4.8
Other Winter		6.5	6.9
		100.0	100.0

Table 2—Apple trees of varieties in Table 1 in commercial orchards in the United States in 1928, with notes as to trends since that time to 1941

Variety	Estimated number	Percent of total	Apple trees in 1928
			Trend since 1928 to 1941
Delicious	6,826,000	8.4	Moderate increase
Winesap	6,617,000	8.2	Steady
Jonathan	6,334,000	7.8	Slight decrease
Baldwin	5,519,000	6.8	Marked decrease
Stayman Winesap	5,076,000	6.3	Steady
Ben Davis*	4,529,000	5.6	Marked decrease
Rome Beauty	4,180,000	5.2	Steady to increase
York Imperial	3,604,000	4.5	Steady to decrease
McIntosh	3,340,000	4.1	Marked increase
Grimes Golden	2,465,000	3.0	Moderate decrease
Yellow Newtown	2,326,000	2.9	Moderate decrease
Wealthy	2,073,000	2.6	Moderate decrease
Rhode Island Greening	1,451,000	1.8	Moderate decrease
Northern Spy	1,395,000	1.7	Moderate decrease
Gravenstein	1,285,000	1.6	Steady to decrease
Arkansas	970,000	1.2	Marked decrease
Golden Delicious	941,000	1.2	Marked increase
Cortland	303,000	.4	Marked increase
Gano and Black Ben*	1,769,000	2.2	Moderate decrease

*In Table 1, data on Ben Davis and Gano, probably also Black Ben, were combined. Total number of trees of these varieties shown here is 6,298,000, which, combined in the above table would put this Ben Davis group in fourth place following Jonathan.



Plum and apple orchard in Worcestershire. Potatoes grow between the trees. This story is run in connection with the International Apple Convention at Chicago, August 8 to 10.

BRITAIN'S WARTIME FRUIT

By H. V. TAYLOR

Royal College of Science

DURING peace time, Britain used large quantities of imported fruit. Extensive stocks of apples were imported from the United States, Canada, South Africa, Australia and New Zealand. Other imported fruits were oranges, bananas, pineapples and tropical fruits. These supplies, in addition to those home grown, provided an abundant source throughout the year and the nation, as a whole, developed a fruit-eating habit.

Preserved fruit, canned pineapples, peaches, or apricots, and fruit pulp, strawberries, raspberries and so forth for jam making were also imported. It is probable that the proportion between imported and home grown was in favor of the imported.

When shipping became difficult, Britain's imported fruit supplies had to be abandoned and the ships used for more essential purposes, and it soon became clear that the supplies would become scarce. Maximum prices for all kinds were fixed and growers have experienced no difficulty in selling all grades at the maximum prices. There seemed a strong case for increasing supplies of home fruit if that was possible, but two major considerations had to be taken.

The first was that, while fruit trees could be planted, they did not normally begin to give an appreciable crop

until after the interval of 6 or 7 years, and even bush fruit and strawberries took two to three years to develop a crop. The second consideration was that much additional land was required to secure increased supplies of potatoes, sugar beet, cereals and such and obviously these crops took preference over fruit. Eventually, growers were asked to maintain the existing acreages of fruit, and told that no additional land could be spared to increase the orchards and fruit plantations.

Britain's Ministry of Agriculture accordingly issued a Horticultural Cropping Order, authorizing growers to maintain their existing acreages, but *not* to make increases without the permission of the War Agricultural Executive Committees. These Committees were asked to give permission in cases where growers had commenced planting schemes before the war and where further plantings were necessary to complete them so as to make the units of economic size; or where trees had died growers could plant to maintain the orchards at their maximum efficiency; or where old orchards had been grubbed up to make way for the planting of a similar acreage.

The main method of increasing supplies of fruit from the existing

orchards was by raising the standards of efficiency and by driving the trees to produce their utmost, and a start was made by organizing teams to make an orchard survey in all the principal fruit growing areas of the country. The surveyors classified the orchards into three categories. Category "A" contained the good, well managed orchards. Category "B" comprised the less satisfactory orchards, capable of improvement and made more productive by better treatment, while the old and derelict orchards were classified as "C" and marked for grubbing.

The War Agricultural Executive Committees first of all took over the "C" orchards, and the trees were pulled out by caterpillar tractors, the land ploughed, cultivated and cropped to potatoes, sugar beet, etc., and excellent crops have since been produced. The cost of grubbing was from £20-£25 per acre. The "B" orchards were next tackled, and orchard schemes were carried through by War Agricultural Committees whereby a service was provided for the grower to raise the standard of orcharding.

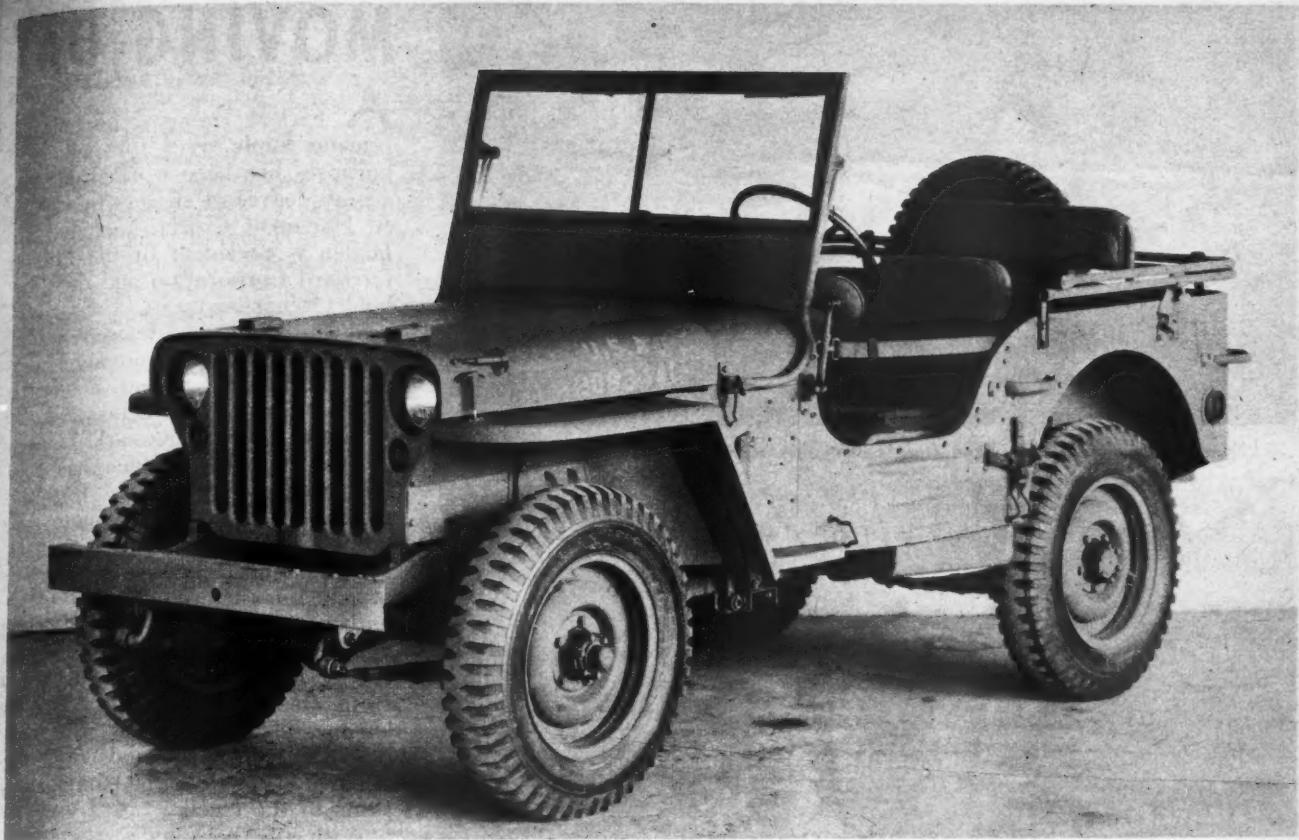
Girls of the Women's Land Army were trained to thin and prune trees, and in the proper methods of using spraying machines to spray the orchard trees, and these girls were employed to assist the growers who were short of labor in the better management of the "B" orchards. The grower was charged a set fee and the work done for him under contract.

Spraying the trees on contract was the principal service to growers in Britain. It was no easy task to secure more sprayers because the engineering firms were used for munitions, so pumps were brought over from the United States and assembled with tanks and wheels in this country into satisfactory spraying machines. Each machine was provided with a tractor and a water cart all in charge of a tractor driver and three girls, two of whom did the spraying and the other arranged the mixing, the water supply, and so forth.

These teams toured the country and sprayed the orchards. In one county alone 50 teams were at work and 12,000 acres were sprayed in 1943, and it is fully expected that a higher acreage will be covered this year. The sprays used for the trees were tar oil washes at 5% during the winter period, followed with lime sulphur sprays during the summer period. If caterpillars and aphis were present, lead arsenic and nicotine were added to the wash.

Britain's Land Girls who had worked during peace time at such jobs as shop assistants, mannequins and

(Continued on page 18)



Modern version of an old song: "Uncle Sam is rich enough to give us all a Jeep."

SURPLUS WAR MATERIAL FOR FRUIT GROWERS

CIVILIAN uses for the Army jeep have been so publicized that less attention has been given to other Army materials than they merit. Preliminary estimates place the total value of war material which the Government will have for disposal after the war as high as 60 billion dollars. Much of this material has but scant value to the individual fruit farmer. It is stuff that he can't use: railroad cars, locomotives, ships, landing boats, cannon, explosives, fabricated steel, and so forth.

In the 60 billion total, however, there are literally thousands of articles that fruit growers and other farmers can use. How will the fruit grower learn of these items? How can he bid on them? Where will they be sold? What prices will be asked? Will the Government let them go in small units, or in mass purchases?

It is the intention of the *American Fruit Grower* to keep its readers thoroughly informed about this war material. It will campaign editorially that the material be disposed of in units and in ways that the individual fruit farmer may buy it. We

propose to run a regular column. As soon as any material is available—and that period looms almost immediately ahead—we plan to allot certain definite space in each issue of *American Fruit Grower* to carry detailed information. To the tens of thousands of fruit growers who can use this material, we promise to give the latest and best information there is about it.

What are the items among this surplus material that will interest the average fruit grower? First, the Jeep, which he can use in a hundred ways, from pulling up dead or exhausted trees and hauling them away, to carrying fruit to market, hauling it from field to cold storage, pulling light equipment that a tractor would ordinarily be used for. One could almost say that the Jeep was designed for the fruit grower—especially the small one—so many are its useful functions.

Second, there is the motor truck. Hundreds of thousands of Army trucks of all types will be available. Since the overhead cost of these trucks will be far less than new ones, many growers can own a truck who would otherwise try to get along

without it. Different sizes will suit growers with different volumes of production.

Three, tractors—particularly the "crawler" type. The fruit grower has long favored the "crawler" type of tractor for a number of reasons. With them, it is possible to cultivate closer to trees. They have more reserve power for heavy duty, such as pulling up trees or discing in hard land. For bulldozers and other purposes, the Army has likewise specialized in the "crawler" type of tractor. Many of these are too big for the average fruit farm, but there will be many small ones for sale which will suit this average fruit farmer. Other growers favor the conventional tractor, and thousands of these will likewise be available.

Four, pumps—For landing craft, merchant ships, fortifications, and Army camps the Government is using literally millions of pumps of all types and sizes. More specifically than any other type of farmer, the fruit grower needs pumps. He needs them for spraying and also for irrigating. In two-thirds of the orchards of the country, irrigation in

(Continued on page 20)

MOVING DAY

A FARM system for moving bearing apple trees for pollination purposes has been worked out with a high degree of success by Chesley A. Haden of Crozet, Virginia. Mr. Haden is president of the Phoenix Orchard Corporation and the Coveland Orchards, Inc.

With his newly-devised system, Mr. Haden has been moving 12 year old Delicious trees, with a diameter of from four to five inches.

From a boiler smokestack, 42 inches in diameter, Mr. Haden has made half-circular tree bands, 18 inches in height. In the first photo, note bolting lug riveted to the tree band.

The banded tree, with a log chain attached, is then pulled from its hole onto an orchard slide. With the help of an iron hook tying the log chain to the platform, the tree is pulled from its original location to the loading platform. The iron hook holds the platform under the tree while it is being pulled, on loading skids to the truck.

With the help of a "gin pole," block and tackle, and a rope operated by a tractor, the banded tree leaves the slide and starts on its journey up the skids.

In its final stage of moving, the tree rests on the loading platform, supported by guy ropes, and is ready to be hauled to its new position.

Trees rest on loading platform.



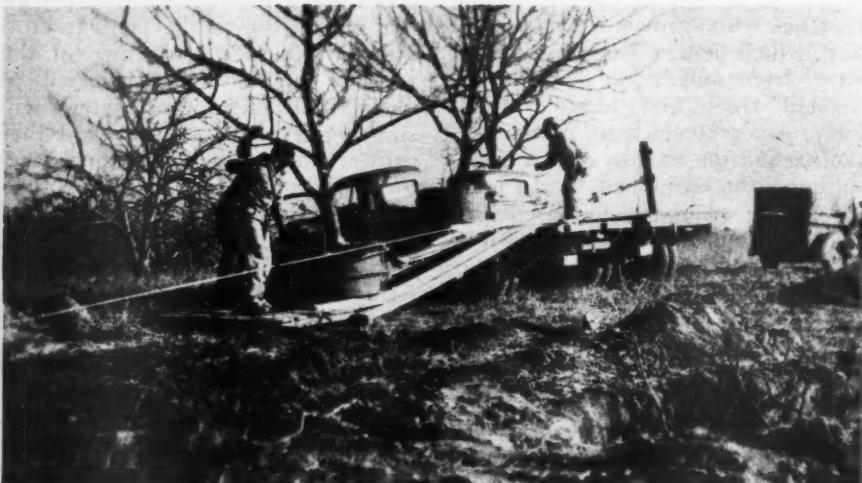
Half-circular tree bands made from boiler smokestack 42 inches in diameter.



Banded tree with chain attached being pulled from hole onto orchard slide.



Banded tree being pulled from hole to loading platform with help of iron hook.



Tree on loading platform leaving slide and starting on journey up skids.

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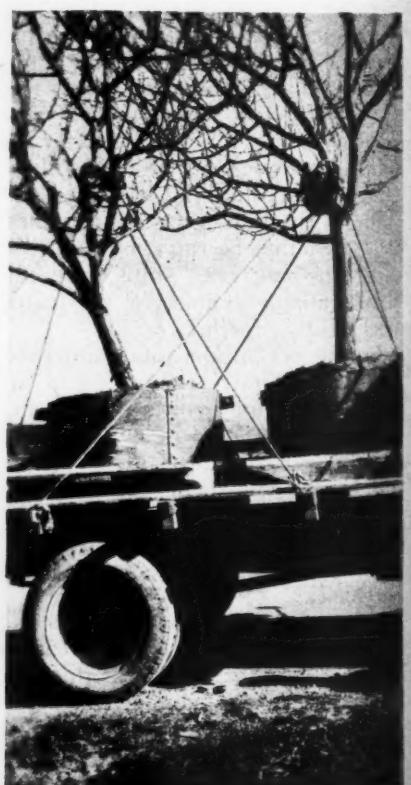
From a boiler smokestack, 42 inches in diameter, Mr. Haden has made half-circular tree bands, 18 inches in height. In the first photo, note bolting lug riveted to the tree band.

The banded tree, with a log chain attached, is then pulled from its hole onto an orchard slide. With the help of an iron hook tying the log chain to the platform, the tree is pulled from its original location to the loading platform. The iron hook holds the platform under the tree while it is being pulled, on loading skids to the truck.

With the help of a "gin pole," block and tackle, and a rope operated by a tractor, the banded tree leaves the slide and starts on its journey up the skids.

In its final stage of moving, the tree rests on the loading platform, supported by guy ropes, and is ready to be hauled to its new position.

Trees rest on loading platform.



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Sugar to Beekeepers

CHANGES in the procedure for allotting sugar to beekeepers, who need it for feeding bees kept solely for pollination purposes, or for producing honey for the bee owner's home use, have been announced by the Office of Price Administration. Any person who needs sugar to feed bees may obtain up to 10 pounds of sugar per bee colony each calendar year.

Under emergency weather conditions where bees cannot subsist on their natural source of nectar, and the supply of honey left in the colony is too small, provision is made for extra allowances of not more than 15 pounds of sugar. These can be obtained only by certification from the beekeeper's local U.S. Department of Agriculture War Board, that the bees would be lost if not given emergency feeding. Application for sugar for bee feeding should be made to the bee owner's local War Price and Rationing Board.

Apple Regulations Ended

ALL regulations requiring sale of lower grade and smaller size apples to authorized processors have been terminated by the War Food Administration.

The original order was issued September 1, 1943, when demand for fresh fruit was so great that the fresh market was threatening to absorb many of the lower grade apples originally used for processing.

Fertilizer Prospects, '44-'45

FARMERS may get an increased supply of fertilizer for use in the 1944-45 season, if they order and accept delivery early. Prospective supplies of fertilizer materials are: potash, 21 percent more than in 1943-44; super-phosphate, 25 percent more than last year, provided that new production facilities are completed on time, and that sufficient operating labor can be obtained; and more nitrogen than was actually used this season, or about the same as would have been used if more nitrogenous materials had been available at the beginning of the season.

While the production of fertilizer is classed as essential work by the War Manpower Commission, the distribution of fertilizer is not classed as essential work. This places on the farmer a greater responsibility for adequate distribution of fertilizer. Farmers can help to assure themselves of increased supplies by ordering early, accepting early delivery, and by doing as much of their own fertilizer hauling as possible.

NATIONWIDE NEWS

Steel-Wheeled Tires

ALTHOUGH additional rubber tire production facilities for large-size tires are now coming into use, tractors now operating on steel wheels will have to stay on steel for a while longer. Additional facilities for big tire production are needed to make tires for military vehicles and for trucks. Harvesting and marketing of agricultural commodities depend to a great extent on large trucks. Rear tires for tractors require the same manufacturing plant facilities as tires for domestic trucks and military equipment.

For an unpredictable length of time, large tractor tires are expected to be available only in sufficient quantities to meet the bare needs for equipping new tractors, and for replacing worn-out or damaged tires on tractors already operating on rubber.

Frozen Food Lockers

DEMANDS for new frozen food locker plants and expansions of similar existing facilities have reached such proportions that the WFA has found it necessary to tighten requirements governing these installations. It was estimated last fall, that materials and machinery would be available in 1944 to permit construction of approximately 550 plants, averaging 400 lockers each.

General requirements to be met by applicants were designed to insure equitable distribution. Now only two classes of users can be included in lists submitted with applications. They are: 1) Persons who are resident operators of farms producing the kind of food normally stored in lockers and who derive their principal income from farm operations; 2) Persons who reside in town, but who supervise the operation of a farm by a tenant on a share basis or by hired labor producing the kind of food normally stored in lockers and who derive their principal income from operations of such farm or farms.

Restrictions Lifted

RESTRICTIONS on the use of wooden shipping containers for packing and shipping certain fruits and vegetables were removed by a recent order of the War Production Board. Formerly the use of new wooden containers was limited to a

percentage of the amount used in 1942. Critical shortages in the supplies of lumber and veneer still exist, and WPB said that it will be necessary for growers and shippers of fresh fruits and vegetables to use secondhand containers to the greatest possible extent if all crops are to be moved to markets.

Apple Dryers Association

RECENTLY a National Apple Dryers Association was formed, including practically every one of the processors of dried apples in the country. The activities of the Association are to be devoted exclusively to dried apples and they will not be competitive with any other fruit association. The group expects to cooperate actively with anything identified with the advancement of the apple industry.

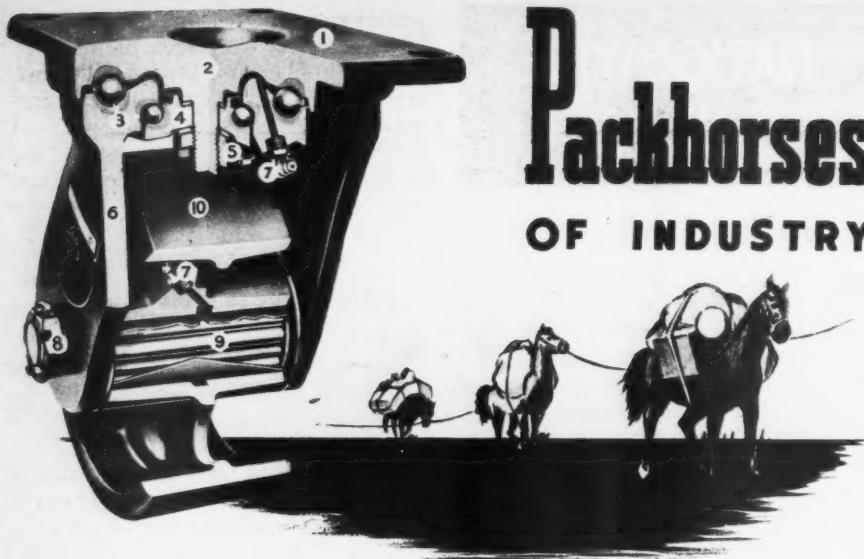
Following are the officers of the association: President, Charles J. Allen, Battletown Fruit Company, Staunton, Virginia; Vice-President, George Hallauer, Valley Evaporating Company, Yakima, Washington; Treasurer, R. E. Oehlmann, R. E. Oehlmann Company, Sebastopol, California.

Ralph S. Headley, secretary-manager of the Association sounded the following keynote of the group's activities: "We appreciate that apples cannot be processed until after they are grown. Therefore, we feel that the growers' interests should be our own interests at all times."

Harvest Season Extended

GRAPEFRUIT, sweet limes, and "sour" and "bittersweet" oranges may be harvested for interstate shipment from the regulated area in the lower Rio Grande Valley of Texas from September 1 to the close of June 15 each year, and the commercial varieties of sweet oranges, throughout the year, the United States Department of Agriculture announced in a revision of the Mexican fruitfly quarantine regulations which became effective last month. These harvest periods will be modified from year to year to meet changing conditions and sterilization of the fruit may also be required before movement interstate.

Citrus fruits, when produced under such conditions as to render them free from infestation by the fruitfly, may be shipped interstate from the regulated area under Federal permit, except that no restrictions are placed on the interstate movement of lemons and sour limes and no permit is required in shipping these fruits. A fruit-free period between harvests is required to prevent fruitfly infestations.



Packhorses OF INDUSTRY

Webster says, a packhorse is "a horse used for transporting packs of goods." Production goods are the life blood of our America in peace or war. Materials must move into and through production and finished goods pass on into the arteries of transportation. Here the caster is the packhorse. Like its predecessors it takes the brunt of the burden and works steadily under heavy loads.

For trouble-free operation and effortless moving, specify rugged Rapids-Standard casters for your production and maintenance packhorses. They roll heavy loads faster and easier . . . longer.

1. Top Plate—drop-forged from heavy 1045 S.A.E. steel.
2. King Pin—forged integrally with top plate.
3. Raceways—double ball bearing, machined and exclusively "Flame-Hardenized" with chrome steel balls.
4. Swivel Base—forged steel construction, fully machined and securely locked into position.
5. Lock Nut—permanently securing swivel assembly.
6. Yoke Base—forged steel construction, correctly engineered for ample capacity.
7. Lubrication—Zerk-type pressure to all bearing parts.
8. Axle Assembly—high carbon axle with heat treated steel sleeve, securely locked.
9. Wheel Bearings—Optional Hyatt or Ollite, provided with Seal and Thrust washers to eliminate wear.
10. Wheel—sizes, types and capacities to meet every requirement.

The Rapids-Standard COMPANY, INC.
5357 Bond Ave., N.W., • Grand Rapids 2, Michigan

Control PEACH BORERS the safe way

Para-Scalecide has a 12-year record of safety and effectiveness for peach borer control that is unequalled by any other method. It has been used on millions of peach trees—young and old—without a single report of injury. Para-Scalecide is not only safe—it actually has a *healing* effect on peach borer wounds. And it requires far less labor and time than the old crystal method.

Dilute Para-Scalecide 1 to 7 parts of water. Pour or spray against the base of the tree. Promptly throw a few shovelfuls of earth against the base to hold the fumes. No further attention is necessary.

Apply in the early Fall, before cold weather sets in, or in late Spring. One gallon treats 40 to 50 full-grown trees.

Order Para-Scalecide *now* and be ready in time for safe, simple, sure control of peach borers. Your dealer has Para-Scalecide, or will get it for you.

B. G. Pratt Co., 163 River St., Hackensack, N.J.

Manufacturers of Scalecide, Para-Scalecide, Spray Catalizer, Spra-Cream, Summer Spra-Cream, D-X

The Dipper Method with
PARA-SCALECIDE
is Safe, Simple, Sure



TODAY'S ORCHARD

By JAMES J. HILL

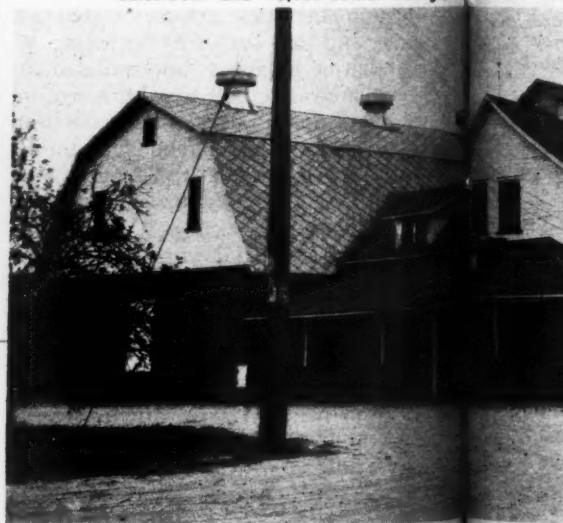
Michigan

FIRST, let me explain that ours is not strictly a roadside market. It is rather an orchard market, being off a main highway and being surrounded by the trees. The fruits from these trees are produced, harvested, and stored on the premises and are sold at retail during the months from September through March.

I state this difference because the permanence of the arrangement of the orchard market may influence the ultimate results of selling under present day conditions. We established a trade that knows from experience what varieties we have, what the quality will be, what our grades are, and, above all, this trade knows that our salesroom is backed up by a 15,000-bushel storage, and that the storage is backed up by a well-cared for 70-acre orchard. If a customer uses a precious supply of gas to get to our salesroom, he knows that he is not going on a wild goose chase. An ordinary roadside stand can close or move over night, but not an orchard market.

To date, we have not noted a slack in

Salesroom and 15,000-bushel storage, in 70-acre orchard



ORCHARD MARKET

By J. J. HILL

Michigan

our business because of gas rationing.

From the beginning of the rationing period we have encouraged through our newspaper contacts the advantage and economy in buying by the bushel rather than in smaller quantities, and the advantage of neighbors pooling their orders and driving together instead of making individual trips to the orchard.

That this trend has been acceptable is evidenced by the fact that we have used less than 50 percent as many sacks for small orders than we usually do, and we have more than doubled the number of bushel containers used.

We also have noticed that a number of factory workers living in our neighborhood, which is only 20 miles distant from two cities, are taking quantities of apples into the factory to accommodate their friends there who find it difficult to drive out.

Some are making a little sideline business of this, charging small fees so that it is worth their while to take the fruits into town.

The number of miles traveled by our customers today to get fruit is reduced by at least 75 percent which is a patriotic saving as well as a good personal economy. It has been an advantage for the grower, too, in that it has eliminated a lot of small sales in favor of larger ones.

I hope that some of these lessons in economy and service will remain with us after this war is over.

oraga, has 70-acre orchard at Montrose, Michigan.



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**Tie them
to the tree with
APP-L-SET**

This year, reduce preharvest drop and wind loss . . . get larger fruit of better color and quality. App-L-Set works well on most varieties of apples as well as on Bartlett pears. Spray thoroughly, to wet all surfaces of the trees. App-L-Set will help you reduce picking costs because it eliminates the need for "spot picking" to a great extent and affords you a longer harvest period.

App-L-Set dust is also available for those who prefer to dust rather than spray.

THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN
New York • Chicago • St. Louis • Houston

INSECTICIDES

There's a Dow Product for practically every spraying and dusting need. For complete information, see your dealer or state experiment station or write us.



CHEMICALS INDISPENSABLE
TO INDUSTRY AND VICTORY

STATE NEWS

ARKANSAS—Early in the year, Arkansas' fruit crops were bothered by frosts; now they are being harassed by drought. Outside of the northwest section, the state's peach belts will produce well. There will be something over a half crop of grapes and slightly less than half a yield of apples. Early apples produced the best this year. Jonathan are fair; later varieties, almost nil.

Considering the present limits on time and transportation, the State Horticultural Society's summer meeting at Springdale on July 14th was well attended. The discussions largely swung back to good old grower problems, and there was little mention of these problems in relation to the war. Growers seem to have accustomed themselves to the war and are meeting its emergencies with little confusion.—*THOMAS ROTHROCK, Sec'y, Springdale.*

FLORIDA—The largest display of mangos ever shown in this country, was exhibited at West Palm Beach's Mango Forum, held recently. More than 150 types of mangos, varieties and seedlings were included in the display, which attracted a great deal of interest and comment from those who attended.

Among the five hundred persons who attended the forum to obtain information on production and uses of this Florida fruit, were growers of Palm Beach, Dade, and other southern Florida counties. The forum was conducted by classes so that those attending could hear discussions dealing with all phases of production and utilization of mangos.

KANSAS—A good bud on most apple varieties and a very heavy bloom gave promise to a large fruit crop for Kansas, but adverse weather conditions, late frosts and continued cold rains during the blossom period, and other causes, brought about a heavy drop of apples in many orchards.—*GEO. W. KINKEAD, Sec'y, Kansas.*

A 75-year-old limestone mine near

Atchison, Kansas, has been leased by the War Food Administration. Plans are being made to convert the mine's estimated 12,000,000 cubic feet of space into a storage vault for Government-owned perishables.

The project includes installation of refrigerator machinery to give the mine a temperature of between 30° and 32° F. This will make it the largest single cooler storage house in the United States, its total cubic footage alone being equivalent to about 9 percent. of all public cooler space in this country.

MARYLAND—From general indications, there will be an increase over the 1943 crop of both apples and peaches, but that does not mean a bumper crop. There was heavy bloom generally, but the fruit did not set in proportion. The June 1 report of the Maryland Crop Reporting Service shows the condition of peaches to be 83 in comparison with 39 on June 1, 1943, or an indicated increase of about 381,000 bushels over the 1943 crop.

Apples show about 26% increase in condition over June 1, last year. In general, both peaches and apples are sizing well and are rather clean of disease.—*A. F. VIERHELLER, Extension Horticulturist College Park.*

MICHIGAN—Violent storms and heavy rains pelted the fruit belt during June. Hail was reported in some localities. Strawberry picking, peach thinning and spraying were on the docket. The apple crop will not be as large as thought at first, due to a heavy drop. Peach thinning was mainly done by hand in the usual way. Labor shortage made the thinning job a tedious one, and some growers used war prisoners when they could get them.

NEW YORK—Liberty Hyde Bailey, one of America's most widely-known horticulturists, has put forth a new idea at Cornell. Dr. Bailey has proposed that the old name, Cornell Arboretum, which is a garden of trees and other woody plants, be changed to Cornell Plantations.

It is Dr. Bailey's idea that the Plantations be enlarged to include all things that grow, animals as well as plants, and that it should constitute a great education program designed to embody a whole series of enterprises based upon the land.

OHIO—The Executive Committee of the State Horticultural Society at a recent meeting in Wooster, made plans for a summer meeting for Northern Ohio, another for Southern Ohio, and will cooperate as usual with the Orchard Day program at the Experiment Station.

The Northern meeting is being arranged at Fruitland Orchards, operated by E. S. McConnell & Son, Ravenna, for Wednesday, August 16. This location is very central to minimize travel for a large membership in northern and northeastern Ohio. It is also reasonably close to Wooster where the annual Orchard Day at the Experiment Station is planned for Thursday, August 17. This will minimize travel to both these meetings and many will want to take in both.

The Southern Ohio meeting is being arranged at the orchard of our President, W. F. Kampf, Athens, Thursday, August 24. At all meetings there will be a tour of the orchards in the morning with a speaking program during the early afternoon.—*FRANK H. BEACH, Sec'y, Columbus.*

TENNESSEE—Rather severe drought conditions prevailed over Tennessee during May and June, and thoughts turned naturally toward moisture conservation methods. When we visited the Washington Heights Nursery near Knoxville on June 26, we found a rather novel method in operation. In a 25-acre block of budded cherry trees, under a billowing cloud of dust, we found four workmen, two with ordinary cultivators, and two with box floats or sleds, or "slides," as the owner calls them. The slides are made of rough 2 x 6 lumber, weighted with about a hundred pounds of rock, and guided by a pair of ordinary plow handles. The slides follow immediately after the cultivators, crushing small lumps, and leaving the soil surface astonishingly smooth.

Mr. Lee McLean, the owner, explained to us that he had started this practice back in '25, and had used it in only four seasons since then, when drought conditions approached severity. He had started the slides only five days previous to our visit, yet we could scratch down through the pulverized soil in the slide track and pick up moist soil at finger depth.

Severe drought prevailed in the Morristown area, too, but there is little evidence of it in Charlie Bell's new strawberry patch. He used no tricky gadget or special process, yet in this field of thrifty plants there wasn't a weed or a missing hill. The variety is Red Star. Mr. Bell sold nearly \$70.00 worth of berries of this variety from his last year's planting.—*A. N. PRATT, State Horticulturist.*

VIRGINIA—The decision to organize a Virginia Peach Growers Council was made at a meeting in Charlottesville on July 7th. The Council will become an integral part of the National Peach Council. Those communities within the state who wish to meet and work on some of the local problems may, in turn, organize community groups under the state council.

The object of the council is to develop a united action in trying to solve the many problems confronting the industry which individuals and unorganized growers cannot and will not undertake.



Charlie Bell, Morristown, Tennessee, with his Red Star strawberries, free of weeds.

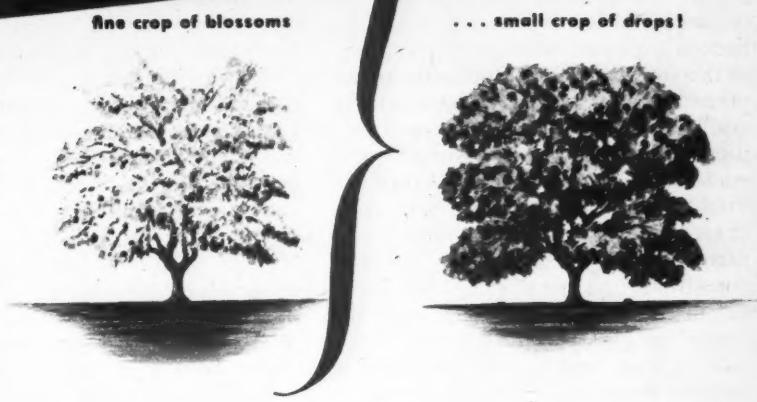
How much FRUITONE do you need?

(Fruitone for spraying is packed in 12-lb. cases; Dust Fruitone in 50-lb. bags. 1 lb. Dust Fruitone gives same coverage as 10 gals. of Spray Fruitone.)

½ lb. Fruitone makes 100 gals. of spray, enough to cover ten average 10-year-old trees; or five average 20-year-old trees.

10 lbs. Dust Fruitone covers ten average 10-year-old trees, or five average 20-year-old trees.

It's cheap; it works!
Order your supply
NOW!



ONCE, you had to take windfalls as a costly act of Nature. All you could do was look at the fruit-strewn ground and shake your head.

No more. Science has caught up with this nightmare of the orchardist, has found a way to reduce the heavy loss. The answer—FRUITONE! A 2-hormone spray (or dust) that tightens the tree's grip on the fruit, gives it a longer time to ripen to full size and color.

For about 1c a bushel you can give your apple and pear trees a Fruitone spray—the cheapest way yet found to increase your crop *this year*. It's not too late to schedule your harvest spray. Send for our free maturity schedule today; it's a tested guide for timing the spray for each variety.

Order Fruitone from your dealer now; mail coupon for free copy of the maturity schedule.

(Fill in, clip and mail TODAY)



AMERICAN CHEMICAL PAINT CO.
Horticultural Division No. AFG-6
Ambler, Pa.

Please send me your maturity schedule at once. I have _____ apple trees, mostly _____ years old. I use Spray or Dust .

NAME: _____

ADDRESS: _____

TOWN: _____ STATE: _____

FRUITONE

REG. U. S. PAT. OFF.

The 2-hormone spray or dust to stop pre-harvest drop

Made by the

AMERICAN CHEMICAL PAINT CO.

Ambler, Pa.

Distributed by: The California Spray Chemical Corp.

APPLE PRODUCTION BY VARIETIES

(Continued from page 7)

in other states rather than in New York. Similar comments might be made regarding other varieties.

The backing which a new variety receives when it goes out into the world is a large factor in the speed with which it becomes popular—provided it possesses in adequate degree desirable characteristics and qualities of tree and fruit. For instance, the Delicious has not yet been in the trade 50 years but it has been popular for nearly half that time and now is the most extensively grown variety in the country. It is doubtless true that no other variety has ever been introduced, backed by such extensive advertising as this one was given. But unlike many other varieties that have been widely and loudly acclaimed, it possesses qualities pleasing to grower, shipper and consumer. In its 28 years before the public, Golden Delicious has made remarkable progress in popular favor, mainly for 3 reasons: (1) There is something in a name—even the name of an apple; it went forth with the ascending prestige of Delicious which had at that time gained considerable popular favor; (2) Like Delicious, it was very extensively advertised in appealing terms; (3) It had—and has—much about it that pleases the public generally. A new variety that is dependent solely on merit, no matter how great, for its advancement, becomes known and appreciated slowly—40 years for such development as suggested, being a conservative statement.

Present relative production of the different commercial varieties was foreshadowed to some extent in 1928 in data appearing in a mimeographed report, "Estimated Numbers of Apple Trees by Important Varieties and Ages in Commercial Orchards in 41 States," issued by the U. S. Department of Agriculture, Bureau of Agricultural Economics in cooperation with State colleges and State departments of agriculture. The particular data referred to are repeated in Farmers' Bulletin 1883, Apple Varieties and Important Producing Sections of the United States, by J. R. Magness and published in 1941, together with that author's appraisal of the trend in the planting of the varieties during the period 1928 to 1941. The data from the above mentioned report used by Magness include 29 varieties, among which are all of those mentioned in Table 1, and which are presented in Table 2.

Briefly correlating some of the data in Tables 1 and 2, it is readily seen

that the leading position of Delicious in 1942 and 1943 was foreshadowed in 1928, though perhaps not in so large a degree as the production (Table 1) shows. However, many Delicious trees in 1928 were young and a relatively heavy increase in production in the following 12 or 15 years was obvious even without the planting of proportionately more trees. In percentage production (Table 1), Winesap and McIntosh appear very close together for second place, the former being second in Table 2, and McIntosh in the ninth relative position. This increase in importance of McIntosh during the years 1928 to 1941 was evident in the trend given in Table 2. At the present time McIntosh is in much the same status as was Delicious in 1928. A great number of trees are young. As they advance in age and size, increased producing capacity will naturally occur so that within a comparatively few years McIntosh production will obviously give it clearly second place over Winesap, which seems likely to continue about as it is at present.

Baldwin declined during 1928 to 1941. Marked decrease was indicated in Table 2, the result largely of the severe tree injury from low temperatures in the winter of 1933-34. The relative position of the Ben Davis group (Gano and Black Ben mainly, besides Ben Davis), changed markedly during the period intervening between the times represented in Tables 1 and 2. Magness, in Farmers' Bulletin 1883, page 21, attributes this decline, particularly of Ben Davis, to the destructive drought periods that have prevailed at times in the middle western districts since 1930.

Other comparisons and correlations between data in Tables 1 and 2 will

Rome Beauty—a leading culinary variety.



USDA July 1 Crop Estimates

Kind	1944 Estimate	1943 Yield
Apples	122,268,000	89,050,000 (bushels)
Peaches	69,201,000	42,200,000 "
Pears	27,733,000	24,585,000 "
Grapes	2,652,100	2,972,900 (tons)
Cherries	194,480	116,510 "
Apricots	320,600	105,500 "

readily be made by the reader who is interested in them.

If one thinks only of the commercial apple variety situation as it now stands, a query might arise as to the worthwhileness of apple breeding, considering the long period required for constructive results; the uncertainty of the results; the cost and many other factors. Yet this very situation should be a forceful stimulus to further and more extensive breeding, especially by institutions where the work can have promise of continuity over long periods of years. As one studies the varieties now comprising the bulk of commercial production, the conclusion is inevitable that there is not one in the list that does not possess serious faults. Yet if the good points of all the varieties could be combined in a few varieties, there would be some very fine apples available—fine from the standpoint of grower, shipper, consumer. Such varieties could be expected to increase materially the consumption of apples and aid in maintaining their place in the fruit world in competition with other fruits.

From the breeding standpoint, it is not too much to expect, even to feel assured that varieties superior to any now known are possible. Advancement may seem slow when one thinks of the thousands of seedlings, the result of breeding, grown to fruiting in the past 40 or 50 years, and then destroyed because they were inferior in comparison with the relatively small number considered worth naming and introducing. In contrast there is the small number of really valuable varieties now in the trade, the best selections of nobody knows how many millions of chance seedlings grown over the centuries from which they have been selected. This "origin by chance" which is Nature's unaided way does not involve the factor of time nor the favor of public support for its progress.

THE **PLUS** ACTION HORMONE SPRAY★



For Maximum Color... Size...

More of the **MONEY FRUIT!**

SPREADS PICKING...HELPS THE LABOR PROBLEM

Apple and pear growers have seen convincing proof of what the Stafast pre-harvest spray will do to hold the fruit on the trees for deeper color and increased size. This season they will apply the Stafast hormone spray for another important reason—to help in the shortage of pickers by spreading out the harvest period and cutting down or eliminating "spot picking."

HIGH IN ACTIVE INGREDIENTS

★ STAFAST stands out in the field of hormone sprays because of its exceedingly high percentage of active ingredients. Its effectiveness is derived not only from its naphthalene acetic acid content, but from the total content of its cooperative hormone functioning properties.

MAXIMUM SPRAY EFFICIENCY

STAFAST is made in dry powdered form so as to assure complete stability under all conditions. It contains wetting and adhesive agents to give maximum spraying efficiency. Addition of oil is not necessary. It is mixed in

the spray tank in the same way as any commonly-used powdered spray material, and, of course, it is kept under agitation and applied right after mixing.

↓ WHAT STAFAST WILL DO ↓

1. Reduce pre-harvest drop and windfall losses to a minimum.
2. Improve color, size and value of crop.
3. Spread out harvest period.
4. Cut down "spot picking."
5. Help solve labor problem.

GROWERS have proved in their own orchards that the STAFAST pre-harvest spray application pays for itself many times over.

WRITE TODAY for the complete story.

*Reg. U.S. Pat. Off.



GENERAL CHEMICAL COMPANY

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AN APPLE A DAY

● If you could prevent one premature apple drop daily through proper use of *Niagara Stik* . . . the anti-drop apple spray . . . you would greatly increase profits! *Niagara Stik* prevents chemical changes in the cell walls of fruit stems, thus stopping abscission. This results in the apples staying on the trees until ready for harvest. Increase the yield of choice fruit and add to your profits by using *Niagara Stik*. It's economical too: it costs less than two cents per bushel harvested.

For detailed information, write to:

NIAGARA SPRAYER
and Chemical Co., Inc.
MIDDLEPORT, NEW YORK

"Wenatchee"
PATENTED
FRUIT PICKING BAGS

SAVE
Fruit!

And
SAVE LABOR

Make you more profits! Wenatchee Fruit Picking bags are inexpensive but sturdy, pay for themselves many times over in a single harvest.

STOP
BRUISES and STEM
PUNCTURES

With original Wenatchee Fruit Picking bags. Endless steel frame keeps bag open, fits body comfortably. Adjusts to $\frac{1}{2}$ bushel capacity for picking tender fruits, opens to full bushel size as needed. Empties from bottom with "E-Z Off" snap. Has wide adjustable web suspenders. Leather reinforced where the wear comes.

SCHAEFER & ROSSUM CO.
MANUFACTURERS ST. PAUL 1, MINN.

BRITAIN'S FRUIT

(Continued from page 8)

hairdressers have worked assiduously and well, and have earned the respect of hundreds of fruit growers throughout the country.

The soil nutrition of the orchards was maintained so far as it was possible to spare fertilizers for this purpose, but the fruit grower has had to make a sacrifice. In peace time, fruit growers in Britain used potash and phosphates, but both of these were needed for the cereal and root crops, and neither potash nor phosphates could be spared for general orchard purposes. The growers were urged to use nitrogen liberally, and the nitrogenous fertilizers have formed the main basis of nutrition of the orchards during the war period.

In one way or another the acreage to orchards has been maintained and the standard of the orcharding has been raised. Many derelict orchards have been grubbed and the "B" type of orchards have been improved and with agreeable weather predominating, it has been possible, in the past four years of war, to raise three good fruit crops and so make less apparent the nation's shortage of fruit. The crops in 1940, 1942 and 1943 were good, and only that of 1941 was slightly below average.

During the war period there has been little time to raise young fruit trees and bushes in Britain and, as a result, there is now a general scarcity of fruit on them, and many fear that planting schemes will be held up after the war. Worse still, the beds of root stocks, which are required for budding and grafting to build up trees, have been neglected. This is being taken in hand and fruit growers and fruit tree nurserymen are now being encouraged to increase their fruit stool beds. The Fruit Research Stations in Britain are also to play their part—the East Malling Research Station has increased its area to stool beds of root stocks, and the Long Ashton Research Station is raising quantities of stocks from seeds.

Even with these schemes, the quantity of fruit stock available will be limited, and a movement has therefore been set on foot to limit the varieties of apples for grafting so that the best use is made of the root stocks available. Fruit growers and tree nurserymen have entered into an agreement with the Ministry of Agriculture and apples to be grafted are limited to 10 kinds:

Bramley's Seedling Grenadier
Cox's Orange Pippin Laxton's Superb
Edward VII Laxton's Epicure
Miller's Seedling Laxton's Fortune
Worcester Pearmain Lord Lambourne

Consideration has not been given to varieties of plums or pears as yet, but these possibly may be tackled in the same way.

For the soft fruits, the best stocks of blackcurrants, strawberries and raspberries are being discovered on growers' farms, and a register of these has been compiled by the Ministry of Agriculture. Each stock being assigned a certificate if healthy and relatively free from virus diseases, and suitable for planting.

It is by these steps that the fruit industry in Britain has survived the war period, and, in many ways, has actually been improved.

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GOLDEN CONVENTION

The Golden Convention of the International Apple Association, celebrating 50 years of service, will be held in Chicago, August 8 to 10 at the Hotel Sherman.

The convention will open on Tuesday with an address by President Paul W. Scea of Wenatchee, Washington. Discussions of the Amended Emergency Price Control Act, and the new Apple Order will be the day's highlights.



Secretary Fraser

President Scea

A report by the Secretary, Samuel Fraser, Rochester, New York, will head the second day's meeting. Four main topics will be discussed by convention delegates of interest to the entire apple industry: (1) transportation and warehousing problems and storage space available for apples; (2) the apple and pear purchase program for the Armed Forces, Lend-Lease; (3) War Food Administration program for dried apples, canned apples, and apple sauce; and (4) apples for civilian use in the form of by-products.

Post-war problems will be considered at a round table discussion at the afternoon meeting on Wednesday. The following subjects will be debated: financial problems and adjustments businessmen should make; financial and other adjustments which producers should make; problem of exports and exporters; shipping facilities and the export trade.

On Thursday, the final day of the Golden Convention, the Canadian-United States Apple Committee will report and make recommendations as to what the two countries shall do with their apple crops. This will be followed by a presentation of 1944 prospects and problems with regard to fruit. The world fruit situation will be discussed, followed by the consideration of various specific crops such as: citrus fruits, cranberries, bananas, and pears.

The last session of the convention will be devoted to resolutions, committee reports, election of officers, new business, and the apple crop report.



"Remember the picnic we took Mary on? . . . How is the garden doing this year? . . . Sure could go for one of Mom's apple pies."

Yes, he has weightier matters on his mind . . . battles to be fought, a war to be won. But while there's time, he writes to ask about the small, familiar things that he remembers.

These are the things that he'll be coming home to when the war is over . . . the *little* things—the small, familiar pleasures that help mean home to all of us.

It happens that to many of us these small pleasures include a glass of beer occasionally—as a beverage of moderation after a hard day's work . . . enjoyed with friends or with a home-cooked meal.

A glass of beer or ale—not of crucial importance, surely . . . yet it is little things like this that help mean home to all of us, that do so much to build morale—ours and his.



Morale is a lot of little things

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WANTED: USED ELEVATOR UNIT, CHAINDRIVE,
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ORCHARDS, Quincy, Illinois.

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NUT GROWERS NEWS

Blight-Resistant Chestnuts As Forest Trees

THE American chestnut tree is pretty
much a thing of the past. The
chestnut blight has spread through the
natural stands of this species and
nearly all the trees are dead or dying.
Thus far no resistant trees have been
found from which the species might
be re-established. Attention has there-
fore been directed to the Asiatic chest-
nuts, of which the Chinese and Japa-
nese species are the most useful.

Until recently the principal objec-
tive has been the development of nut
producing trees suitable for orchard
culture. Considerable success has been
attained and named varieties superior
to the general run of seedling trees are
now being propagated by budding and
grafting and are available from a few
nurseries. These are sufficiently re-
sistant to blight to permit their cul-
ture.

The great value of the American
chestnut was as a timber tree and now
various agencies are seeking to de-
velop types suitable for timber pro-
duction. The Brooklyn Botanic Gar-
den has been working on this phase
of chestnut breeding for several years.
The Division of Forest Pathology of
the United States Department of
Agriculture is also working on the
development of chestnuts for timber
purposes. As a result of the Depart-
ment's investigations and observations
cultural directions have been formu-
lated and published as Forest Path-
ology Special Release No. 15. These
instructions are here summarized
briefly.

The Chinese chestnut is better suited
to favorable sites in the Middle
Western States as well as the eastern
and southern states while the Japanese
chestnut should be tried from the
Appalachian Mountains eastward to
the seaboard and in the coastal plain
and Gulf States. Deep fertile soils are
advisable. Heavily eroded soils from
which the topsoil has been removed
are not suitable sites for chestnut
trees. Good sites are recently clear
cut forest areas before sprout hard-
woods and other competitors have had

time to become established, openings
in the forest, along edges of woodland
and old fence rows. Soils containing
lime should be avoided.

Either seeds or trees may be plant-
ed, but squirrels will take so many
seeds that trees are preferable. The
suggested spacing is 8 x 8 feet or
10 x 10 feet, allowing other vegetation
to provide the competition for removing
the side limbs necessary to the
development of straight stems. For
the first few years after planting, com-
peting brush must be removed. Pro-
tection from grazing animals and fire
is also necessary.

Basal sprouts should be removed to
promote the development of straight
stems.

The 1943 report is now in the
printer's hands and should be avail-
able by midsummer.

George L. Slate, Sec.
Northern Nut Growers' Association
Geneva, N.Y.

WAR SURPLUS

(Continued from page 9)

some form could be arranged.

Five, lumber and building ma-
terials—The Government has mil-
lions of feet of lumber available for
fruit farmers. This category includes
defense housing units which will be
ideal as temporary quarters for pick-
ers. Even a modest fruit grower may
require 50 or 75 pickers in the rush
season. Generally this help is poorly
housed because the fruit grower can
not afford permanent quarters for
use for such a short time. Waste
lumber and insulating material from
dismantled camps in some cases can
be used in building cold storage
plants and better barns.

This list of materials could go on
indefinitely. We enumerate the above
items because they indicate the enor-
mous supply. To the list could be
added chemicals that might be used
as spray material, farm, clothing,
ladders, stirrup pumps, gasoline en-
gines, grading equipment, traps,
barbed wire and other fencing ma-
terials, picks, shovels, mattocks,
axes, horses and mules, harness,
friction tape, welding apparatus,
power wrenches, conveyors, rope,
wire, batteries, and sand bags—mil-
lions of them.

Present indications are that this
material will be disposed of with all
possible haste. William L. Clayton,
surplus war property administrator,
is said to be unwilling that it hang
too long over the regular market.
So far, he has kept quiet about actual
plans for its disposal but announce-
ments are expected soon. When de-
cisions are made, our readers will be
informed.

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To forge, roll, cast and manufacture steel into countless peacetime applications will require many men and women. Steel will continue as one of the nation's greatest industries.

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As wartime jobs are completed, Steel will be turned again to its peacetime function of serving man. When that day comes Steel and Nickel will unite in helping to rebuild and replenish a war-torn world.

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EDITORIAL PAGE



Fruit and a Tariff Policy

NO problem in America is of more pressing or far-reaching importance than tariff policies. When the last war ended and we found ourselves a huge creditor nation, we ran away from the problem. Tariff walls were made so high that it was almost impossible for most countries to sell us even products equal to their current purchases from us, let alone payments on debts. The result was that we got most of the world's gold and debts to us were not paid.

To this pre-war indebtedness has now been added some 25 billion dollars contracted under Lend-Lease. With this added amount it is now sheer lunacy to think that we can operate after this war on any other basis than imports balancing exports. If we would sell we must buy.

Fortunately there is one brighter side to the situation. Governor Dewey's prompt endorsement of Secretary Hull's reciprocal trade agreements indicates that the tariff is no longer to be a political football to be kicked back and forth between the two major parties. Let us hope that this is the beginning of an objective national attitude toward this vast and complicated problem.

If this objective national attitude is to materialize, however, it must permeate into the thinking of the rank-and-file of all major industrial and farm groups of America. As the largest spokesmen for the fruit growers of the nation, we call this tariff problem to their attention. Again and again it has been said that we must not lose the peace that is presently to come. One of the surest ways to lose this peace as we did the last one would be to repeat our last tariff policy.

But a new tariff policy that will encourage an adequate flow of foreign trade without lowering American living standards or doing irreparable harm to some of our necessary industries calls for infinite study and the

broadest wisdom. No policy can be entirely painless. An increase in imports is certain to hurt someone. But that is implied in any program of give and take.

Generally speaking, the fruit industry is a large net exporter. This is a fortunate position. But at the same time it puts a responsibility on fruit growers to assume leadership in working out a permanent tariff policy. We have an export as well as a domestic market to protect. Many groups have only the latter.

Pick Them All

INDICATED is the third largest peach crop in the history of the country. The estimate of 69.2 million bushels is exceeded only by the 1931 and 1941 crops. Growers will remember 1944 for decades to follow, how, when the supply of canned and preserved peaches was probably the lowest in history and the demand the largest, nature went out of her way to produce this near record yield.

Ceiling prices set by OPA are adequate for substantial profits to growers. These prices of \$3.66 a bushel minimum—\$4.00 in the South—for the area east of the Mississippi mean over \$7 to the consumer. The question in most growers' minds is whether the market generally will absorb these prices. Prices are sure to be higher than in years of other bumper crops. With this assurance definite, growers everywhere, either individually or in cooperation with consumer groups, should see that not a peach is wasted. If the war is going on next year nothing will do more for morale than a can of delicious Elberta peaches, or if victory has come, nothing could be more appropriate for celebrating it.

South Pacific Letter

MISS Nancy Tyree of the Women's Land Army, who is seeking 500 Virginia women to help pick peaches, has received the following message from a lieutenant colonel of the infantry, W. S. Mahoney, in the South Pacific:

"Don't let any of that fruit remain on the trees or on the ground that can be harvested and used. Canned fruit and juices are the backbone of our diet out here where heavy foods are not so well suited, and they assist generally in preparing meals when you are far away from your base in enemy territory and fires are out."

Director of the Women's Land Army is Miss Florence Hall, who says her organization last year placed 350,000 women on farms. This year she seeks many more volunteers to help gather this year's crop of eight major deciduous fruits estimated at some 20 percent above that of last

year. Miss Hall can use nothing in her quest more eloquent than Colonel Mahoney's letter, which merits the attention of fruit growers no less than those who will help them gather the 1944 crop.

When Peace Comes

WHAT will be the impact of peace of American fruit growers? Yesterday this question was academic and theoretical. Today it is backed by the substance of probability. Tomorrow it may well be hanging at our very doorsteps for an immediate and pressing answer.

Repeatedly we have been warned that we can't take victory for granted. But equally pertinent is the warning that we cannot assume any longer a definite period in which to get ready for peace. The thunder of Russian guns in the East is too loud to be ignored if we would. And when Germany falls, our war against Japan becomes a localized war with few uncertainties other than the time that it will take to end it.

Of foremost importance to fruit growers when Germany falls will be the opening of the Atlantic to trade. Some American fruit will start almost immediately to foreign countries. How much, will depend upon the allotment of ships. These exports will tend to have a stimulating effect on prices, but government controls are not likely to be lifted until major fighting on all fronts is ended.

The labor situation will tend to improve almost immediately. Some soldiers will be demobilized and a proportion of these will return to the farms from which they were drafted. More will return from war plants, for it will almost certainly be our policy to fight Japan largely with weapons on hand when Germany surrenders. This will include German as well as Allied weapons.

Farmers' supplies will soon become available in larger quantities. Reserves on hand will be released immediately. Newly manufactured goods for farmers will appear more quickly than many other products since conversion to war goods was never complete. Surplus war materials will soon be on sale. Insecticides will face fewer priorities. Changed conditions that affect fruit farmers, however, will be not nearly so drastic as in most industry or most farming. Due to the long life of a tree, fruit growing is one of the most stable of all major occupations. Fruit farmers will face new problems but they should be more than matched by new opportunities. They can celebrate this new armistice with fewer anxieties than most.

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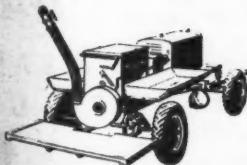


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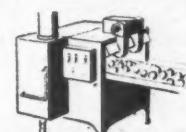
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